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ABSTRACT

The U.S. Office of Education (USOE) sponsors a Special Education Instructional Materials Network which includes 14 regional centers. One of the tasks of the USOE/Michigan State University Regional Center is the collection and dissemination of the information about instructional and professional materials related to special education. The states served are Indiana, Ohio and Michigan. The major direct information dissemination device to the target population is the Question/Answer Service. A descriptive study of the service details the general nature of information needs of special education-related users. The results are reported by occupational classification, geographic distribution, instructional materials, professional materials, and form of entry to the service. A study of three months usage of a computer-assisted information system in special education gives this picture of a typical user: Teacher from the Lower Peninsula of Michigan who used a copy of the Question/Answer checklist to submit a question about instructional materials in communication skills for the educable mentally handicapped, specifically in the elementary grades. (Author/SJ)

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USOE/MSU
REGIONAL
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MATERIALS
CENTER FOR
HANDICAPPED
CHILDREN
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OPERATIONS OF A SMALL COMPUTER-ASSISTED INFORMATION CENTER

The Information Needs of the Users of a Regional Special Education Instructional Materials Center

Monograph Series No. 10

Cooperating with State Departments of Education — Michigan-Indiana-Ohio

*Member — Special Education Network — Bureau of Education for the Handicapped — U.S. Office of Education

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OPERATIONS OF A SMALL COMPUTER-ASSISTED INFORMATION CENTER

The Information Needs of the Users of a Regional Special Education Instructional Materials Center

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*Member Instructional Materials Network for Handicapped Children and Youth
U.S. Office of Education – Bureau of Education for the Handicapped

Introduction

The U.S. Office of Education sponsors a Special Education Instructional Materials Network which includes 14 Regional Centers. Most of the Regional Centers are co-located with universities and serve multi-state areas. Their missions vary, but are generally subsumed under services to special educators.

One of the tasks of the USOE/Michigan State University Regional Instructional Materials Center for Handicapped Children and Youth is the collection and dissemination of the information about instructional and professional materials related to special education. The target population consists primarily of inservice classroom teachers, professors, administrators and other personnel in the special education field, secondarily of preservice (student) teachers, and finally other persons or groups interested in the education of exceptional children. The states served by the Michigan State Regional Center are Ohio, Indiana, and Michigan.

From the inception of information services in 1966 to the present, cataloging, indexing, and retrieval of data about acquired items has been carried out with the aid of the Basic Information Retrieval System (BIRS) operating on the Michigan State University CDC 3600 computer.(1) The result is the SPE-ED (SPEcial EDucation) data base on magnetic tape from which the printed catalog (shelflist and four indexes) and demand and recurring bibliographies with abstracts are produced. The SPE-ED data base consisted of more than 4000 abstracts in December, 1971. Each abstract contains on the average 28 lines of bibliographic and descriptive information.

The major direct information dissemination device to the target population of the three states from the MSU Regional Center is accomplished via the Question/Answer Service. Using a special checklist, devised in October, 1970 (see appendix 1), a special educator indicates the four parameters of interest,

i.e., type of information, grade level, disability area, and subjects, and returns the checklist to the MSU center. The question is formulated in the descriptors of the SPE-ED keyword list, is keypunched and computer-processed under the BIRS search and retrieval sub-programs. The resultant computer print-out, usually consisting of about 20 abstracts relevant to the question, is returned to the requester together with another copy of the checklist and an evaluation card. Using the information obtained from the Question/Answer Service the user may obtain materials locally or borrow them from the Michigan State Regional Center. There is no charge to users for these services.

While no study of the information needs specific to special education teacher educators appears to have been published, some research relating generally to information problems has appeared over the past several years. One study which related innovation and information saw the teachers' needs as being limited essentially to matters of classroom and curriculum planning.(2) Another study investigated information needs, but restricted itself to the source of the information and its importance to the innovation process as reported by district superintendents.(3) Both of these studies document the primacy of local sources of information for the practitioner. Because the user needs reflected by this study of the Question/Answer Service are actual and specific, that is, they are not a response to a general retrospective questionnaire and because they represent a conscious act to go outside the usual local information channels, this brief study is unique. It details the general nature of information needs of special education-related users as reflected by their use of the Question/Answer Service and some of the parameters of their interaction with the system. A more detailed look at the information needs of specific disability area teachers will be taken in future studies.

The results of this essentially descriptive study are as follows:

Occupational Classification was based on the evidence from checklists or other means of entry into the system. Thus, the count of users represents the number of individual question instruments submitted with no attempt to account for repeat users. There were 277 users of the service during the period in question (February, June, October, 1971).

Inservice Classroom Teachers	50%	Consultants	3%
Preservice College Students	24%	Librarians, Speech Therapists, "Unknowns", Researchers	2% each
Administrators	5%		
College Professors	4%	Diagnosticians, Speech Pathologists, Psychologists, Parents, Case Workers, Counselors	1% each or less

Geographic Distribution is based on the user's return address, specifically on the first three numbers of the ZIP code (ZIP District). The maps of the three states indicate the percentages of questions from each ZIP District. Users of the service during the test period were found in 52% of the 68 ZIP Districts in the region. (See ZIP Code charts on pages 5, 6, 7)

Information relating to the *Type of Material* requested by users of the service was determined largely by the selections indicated on the checklist, i.e., documents, curriculum materials, audiovisual materials, journals, equipment, and no preference. An analysis of the questions indicated that the requests for materials by type fell generally into one of three categories:

Instructional Materials	60%
Professional Materials	26%
Professional and Instructional Materials	14%

Instructional Materials are considered to be those items, either print or non-print and including equipment, games, tangible aids, curriculum guides, workbooks, activity books, audio or visual media and reading materials intended for

more or less direct use with or by students or in the immediate planning and execution of instructional activities.

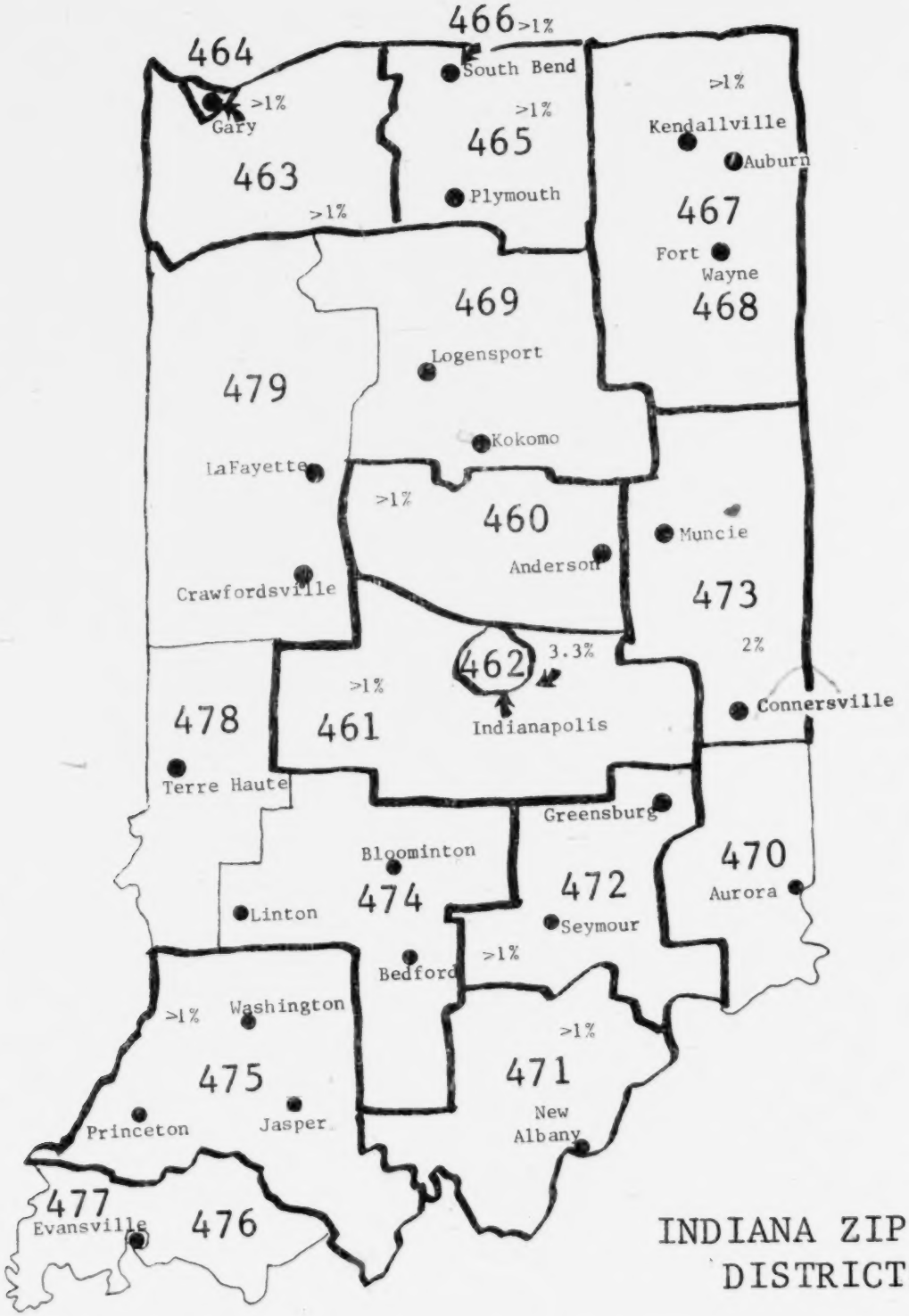
Professional Materials are intended for the preparatory education of teachers and others in special education and are less directly applicable to the immediate needs of the classroom situation. They are largely print materials but also include non-print media such as films, videotapes and cassettes.

Form of Entry to the Service denotes the medium used by questioners to input their requests. Prior to the introduction of the pre-addressed checklist form, requests were forwarded to the Michigan State Regional Center on a variety of media, largely personal letters. For the test period, the input breakdown was as follows:

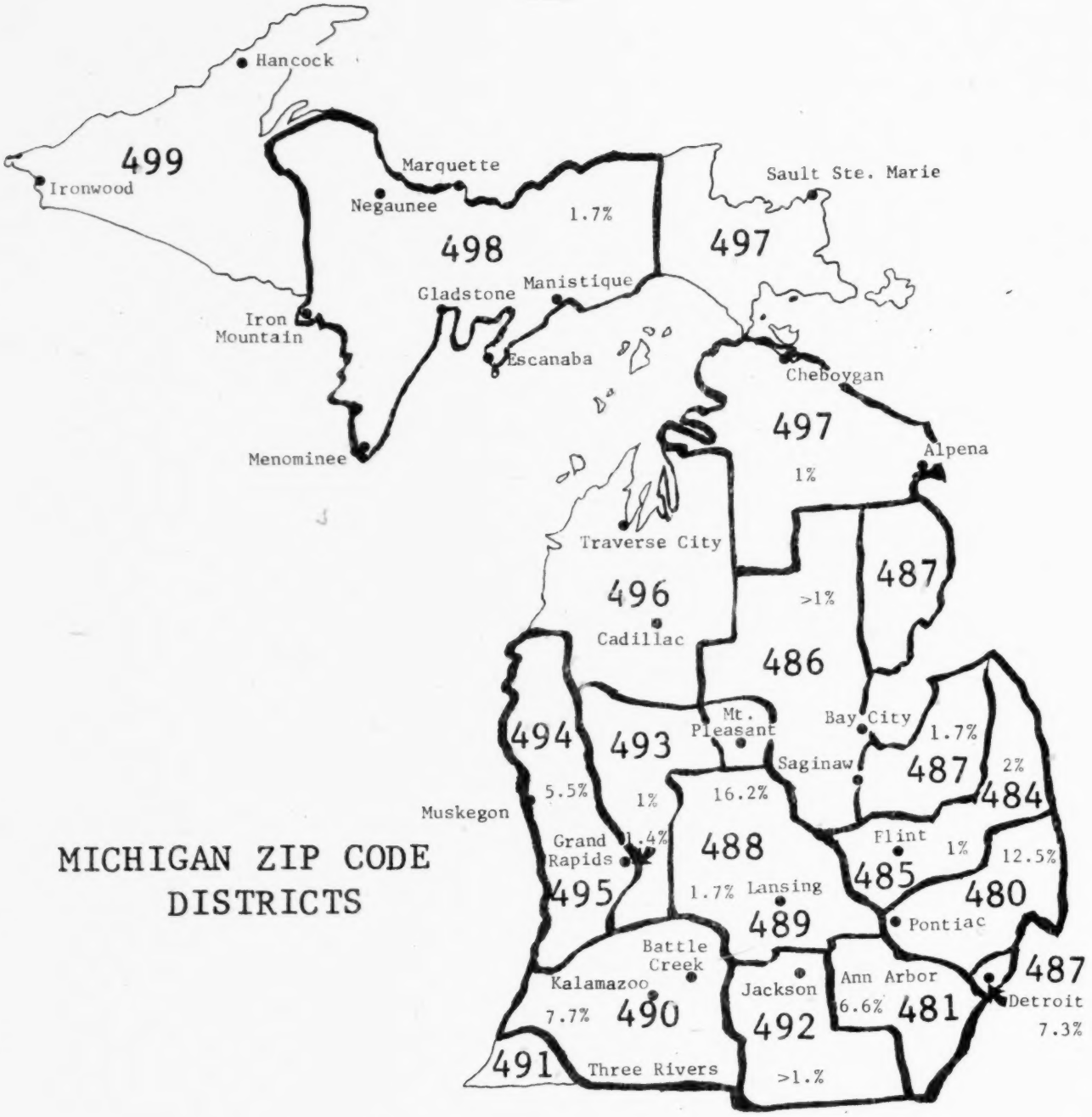
MSU Checklist	38.4%
Copy of MSU Checklist	34.8%
Personal letters	11.7%
Personal contact	10.6%
Dept. of Education forms (Michigan)	1.7%
Unknown	* less than 1%

The checklist made up 72% of input media overall for the three months and in June reached 89%. It has proved to be a popular method for entry and its ease of use probably is responsible for the increasing usage of the system by special educators in the region.

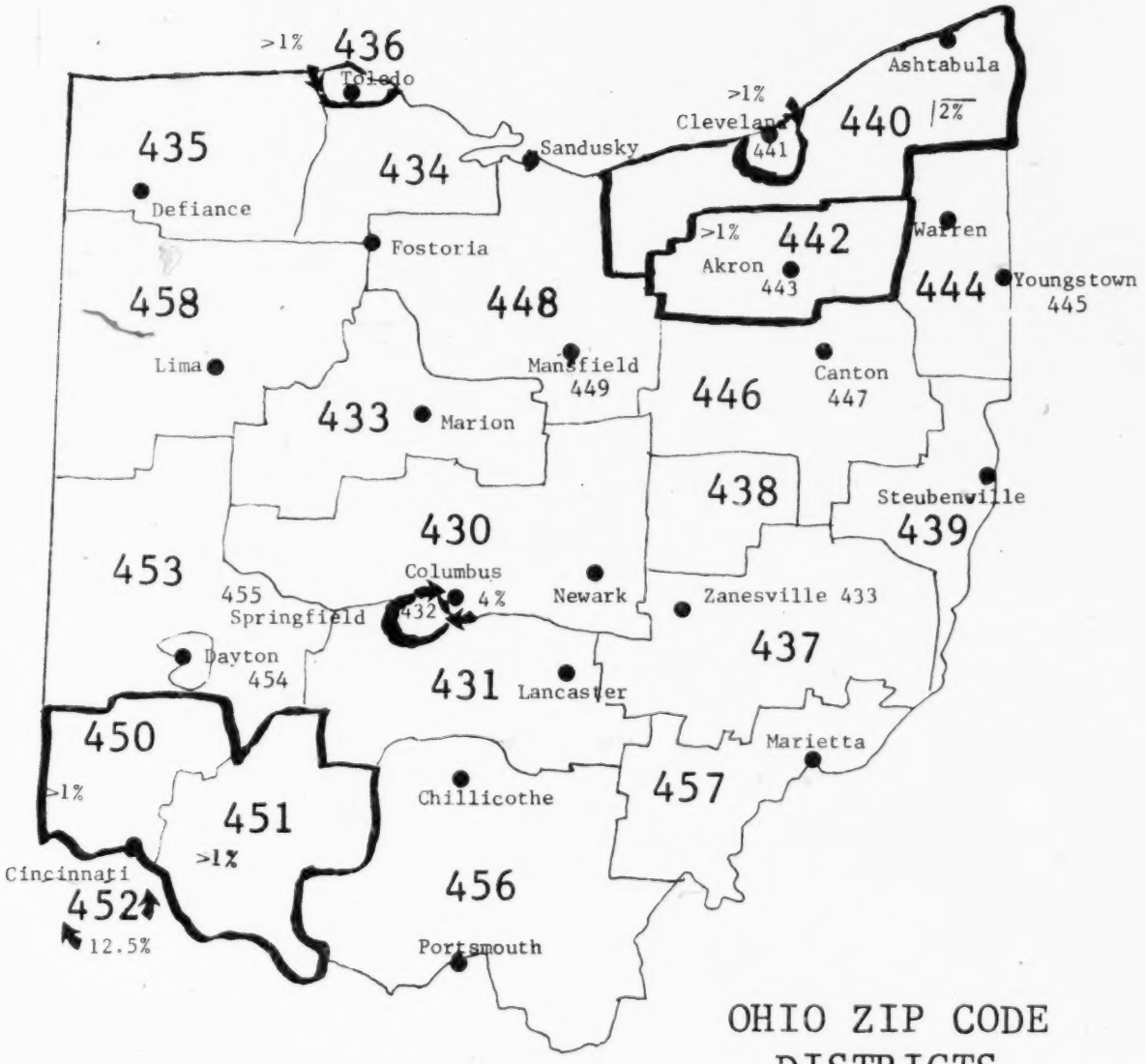
The chart on page 8 explains the percentage breakdown by Disability or Interest Area as indicated by the questioner and the relationship between the Disability/Interest Area and professional personnel.



INDIANA ZIP CODE
DISTRICTS



MICHIGAN ZIP CODE DISTRICTS



OHIO ZIP CODE DISTRICTS

DISABILITY OR INTEREST AREA (* = less than 1%)	%
Mentally Handicapped (total)	44.8
Educable (47.6% of MH)	
Trainable (12.9% of MH)	
Unspecified (39.5% of MH)	
Emotionally Disturbed (Socially Maladjusted)	16.4
Academically Handicapped (Learning Disabilities)	8.5
Visually Handicapped	7.3
Hard of Hearing (Aurally Handicapped)	4.8
Not specifically Special Education related	3.9
Special Education (in general)	3.6
Multiply Handicapped	3.3
Speech Handicapped	1.8
Physically Handicapped	1.8
Gifted	1.5
Deaf-Blind	*
Neorologically Impaired	*
Psychology-related	*

PROFESSIONAL PERSONNEL PER DISABILITY AREA	%
Speech Correction (Service Units)	35.1
Emotionally Disturbed (Teacher-Counselor Units and School Social Work Service Units)	25.4
Mentally Retarded (Teacher-Counselors and Diagnosticians)	17.8
Administrative Directors & Supervisors	6.3
Homebound & Hospitalized (Service Units)	5.1
Crippled & Health Impaired (Teacher-Counselors & Physical Therapy Service Units)	4.9
Occupational Therapy (Units)	1.5
Visually Handicapped (Teacher-Counselors)	1.5
Hearing Impaired (Teacher-Counselors)	1.1
Curriculum Resource Consultants	.09

Although current statistics for all three states were not available some general relationships can be seen between the Disability/Interest area of the question and the approximate percentages of professional personnel estimated for the above listed specialties (total 3,200, 1970-71)*

* *State Plan for the Delivery of Special Education Programs and Services.* Lansing, MI., Michigan Department of Education. February, 1971. 88 p.

One of the major parameters of the search scheme for the Question/Answer Service deals with grade level of the target group of children and youth. In 86% of the cases, the users specified one or more of the grade levels in the percentages indicated:

Preschool	14.3%
Primary (1-3)	23.5%
Elementary (4-6)	23.7%
Junior High	14.7%
Senior High	12.3%
Adult	2.2%

The SPE-ED data base uses a key word list of nearly 700 uniterm descriptors for the indexing and search processes. Although just over 40% of the users of the MSU checklist amplified their questions with written comments, users restricted their questions to the curricular subjects listed on the checklist, with or without amplification.

The subjects on the checklist fall generally into eight groupings. The rank order of subject within the grouping is indicated along with the percentage of questions devoted to each grouping. (Refer to charts on pages 10 and 11)

Summary:

A study of three months usage of a computer-assisted information system in special education gives this picture of a typical user:

> Teacher from the Lower Peninsula of Michigan who used a copy of the Question/Answer checklist to submit a question about instructional materials in communication skills for the educable mentally handicapped, specifically in the elementary grades.

RANKING	MAJOR GROUPING AREAS	% within grouping	% of all questions
	Communication Skills		31
1	Reading	32	
2	Readiness (Reading)	20	
3	Language	20	
4	Speech	15	
5	Spelling	6	
6	Handwriting	5	
	Formal Curriculum		17.5
1	Mathematics	24	
2	Social Studies	22	
3	Physical Education	17	
4	English	7	
5	History	7	
6	Literature	5	
7	Woodworking	5	
8	Typewriting	4	
9	Industrial Arts	4	
10	Business Education	3	
11	Driver Education	2	
	Recreational Activities		16.4
1	Art	25	
2	Crafts	19	
3	Games	19	
4	Recreation	15	
5	Music	11	
6	Hobbies	8	
7	Sports	2	

RANKING	MAJOR GROUPING AREAS	% within grouping	% of all questions
	Vocation-oriented		11.3
1	Vocations	32	
2	Occupations	29	
3	Guidance	24	
4	Work-Study	15	
	Personal Life Activities		9.9
1	Daily Living Skills	37	
2	Sex Education	25	
3	Health	18	
4	Hygiene	10	
5	Home Economics	10	

MINOR GROUPING AREAS	
Administration-Pedagogy	6
Perceptual/Psychological Concepts	5.5
Other	3.6

Conclusions:

The use of the Question/Answer Service represents but one facet of the information-gathering activities of special educators. It is notable in that the educator is going beyond local sources of information. The use of a formated checklist has increased the entry to the service probably by making questions easier to formulate and to mail. It may have a negative effect for some users who receive the impression that the checklist subjects represent the entire content of the data base. The heaviest use of the center by Michigan educators generally parallels data from other periods and is probably the result of propinquity. The ranking of Disability or Interest Area of questions also conforms to data from other periods. The reasons for the relatively light usage by speech correctionists requires further investigation. The rankings of grade level and curricular groupings are also consistent with past and present experience.

Combined with data available in several other papers relating to the instructional materials needs (as contrasted with <u>information about</u> instructional and professional materials) of special education personnel, this study can be useful to plans for the operation of instructional materials and resource centers.[6,7,8]

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7. A Survey of Materials Usage and Needs in the Instruction of the Visually Handicapped Student, Monograph Series No. 1. East Lansing, MI., USOE/MSU Regional Instructional Materials Center for Handicapped Children and Youth. 1968.

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QUESTION/ANSWER CHECKLIST

(one inquiry per question sheet) (appendix 1)

TYPE OF MATERIAL
(choose one or more)

- ☐ Document (book, pamphlet)
- ☐ Curriculum Materials
- ☐ Journal
- ☐ AV Materials
- ☐ Equipment
- ☐ any type

LEVEL
(choose one or more)

- ☐ no preference
- ☐ Preschool
- ☐ Primary (K-3)
- ☐ Elementary (4-6)
- ☐ Intermediate (MR 4-6)
- ☐ Junior High (7-9)
- ☐ Secondary (10-12)
- ☐ Adult

CURRICULAR AREA
(choose one or more)

- ☐ Language
- ☐ English
- ☐ Speech
- ☐ Spelling
- ☐ Handwriting
- ☐ Literature
- ☐ Reading
- ☐ Readiness
- ☐ Tests
- ☐ Orientation
- ☐ Social Studies
- ☐ History
- ☐ Music
- ☐ Typewriting
- ☐ Work-Study
- ☐ Business
- ☐ Occupations
- ☐ Vocations
- ☐ Guidance
- ☐ Health
- ☐ Hygiene
- ☐ Sex Education
- ☐ Daily Living Skills
- ☐ Home Economics
- ☐ Mathematics
- ☐ Geometry
- ☐ Recreation
- ☐ Games
- ☐ Hobbies
- ☐ Art
- ☐ Crafts
- ☐ Industrial Arts
- ☐ Woodworking
- ☐ Physical Education
- ☐ Driver Education
- ☐ Mobility
- ☐ Travel
- ☐

DISABILITY AREA
(choose only one)

- ☐ Chronic (health impaired, hospitalized, homebound)
- ☐ Orthopedic (crippled, cerebral palsied)
- ☐ Learning Disabilities (neurologically impaired, MBD)
- ☐ Emotionally Disturbed
- ☐ Maladjusted (socially, culturally/functionally)
- ☐ Handicapped (overall application to spec. ed.)
- ☐ Hard of Hearing
- ☐ Retarded (only Trainable and Educable)
- ☐ Multiple (combinations of handicaps)
- ☐ Gifted
- ☐ Deaf
- ☐ Educable
- ☐ Trainable
- ☐ Speech Impaired
- ☐ Blind
- ☐ Partially Seeing
- ☐ Deaf-Blind
- ☐ Slow Learning

If the above checklist does not fully identify your problem, write the question or concern here, using your own words. (one inquiry only, please).

_____

_____

_____

_____

_____

_____

Answer should be sent to: (please print)
Miss/Mr./Mrs. _____

_____

_____

_____
City, State, Zip Code.

ACTIVITY OR CONCERN
(specify disability area)

Teacher of _____
Administrator _____
Student _____
Researcher _____
Parent of _____
Other (specify) _____